IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

TQ DELTA, LLC, *Plaintiff*, v. COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE INC., ARRIS INTERNATIONAL LIMITED, ARRIS GLOBAL LTD., ARRIS US HOLDINGS, INC., ARRIS SOLUTIONS, INC., and ARRIS ENTERPRISES, LLC, *Defendants*.	§ § § § § § § § § § § § §	CIVIL ACTION NO. 2:21-CV-00310-JRG [redacted]

MEMORANDUM OPINION AND ORDER

Before the Court is Plaintiff TQ Delta, LLC's ("TQ Delta") Renewed Motion for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of the '008 Patent (the "Motion"). (Dkt. No. 539.) Having considered the Motion and the related briefing, and for the reasons that follow, the Court finds that the Motion should be and hereby is **DENIED**.

I. BACKGROUND

On August 13, 2021, TQ Delta filed the above-captioned case against CommScope Holding Company, Inc., CommScope Inc., Arris International Limited, Arris Global Ltd., Arris US Holdings, Inc., Arris Solutions, Inc., and Arris Enterprises, LLC (collectively, "CommScope"), asserting infringement of thirteen patents. (*See* Dkt. No. 1.) CommScope answered the Complaint on October 22, 2021, asserting the defenses of invalidity and noninfringement. (*See* Dkt. No. 17.) By the time of trial, TQ Delta had narrowed its case, and trial commenced with TQ Delta asserting infringement of claim 36 of U.S. Patent No. 7,570,686 (the "'686 Patent"), claim 17 of U.S. Patent No. 7,453,881 (the "'881 Patent"), claim 5 of U.S. Patent No. 8,276,048 (the "'048 Patent"), claim 14 of U.S. Patent No. 8,090,008 (the "'008 Patent"), claim 10 of U.S. Patent No. 8,462,835 (the

"'835 Patent"), claim 18 of U.S. Patent No. 8,468,411 (the "'411 Patent"), and claim 10 of U.S. Patent No. 9,154,354 (the "'354 Patent") (collectively, the "Asserted Claims"). (Dkt. No. 495 at 1.) CommScope similarly narrowed its invalidity theories to target only claim 36 of the '686 Patent, claim 5 of the '048 Patent, claim 14 of the '008 Patent, and claim 10 of the '835 Patent. (Dkt. No. 497.) CommScope asserted that claim 36 of the '686 Patent and claim 5 of the '048 Patent were invalid as obvious, and that claim 14 of the '008 Patent and claim 10 of the '835 Patent were invalid as either anticipated or if not, obvious. (*Id.* at 2.) CommScope maintained that none of the Asserted Claims were infringed. (*See* Dkt. No. 466 at 4.)

On March 17, 2023, a jury trial commenced in this case. After the close of evidence on March 23, 2023, the Court took up matters from both sides under Federal Rule of Civil Procedure 50(a). In relevant part, TQ Delta moved the Court to enter judgment as a matter of law ("JMOL") that claim 14 of the '008 Patent was infringed, which CommScope opposed, arguing that the '008 Patent was standard essential. (Dkt. No. 533 at 205:12–23; 215:10–25.) The Court denied TQ Delta's 50(a) motion.

In response to the Court's request that the parties clarify which patents were and were not standard essential patents ("SEPs"), counsel for CommScope emailed the Court on March 22, 2023 and explained its belief that the '008 Patent was "neither essential nor infringed, but in the event that the jury finds [it] to be infringed, then the patent must, by definition, be essential and subject to TQ Delta's RAND commitment." (Dkt. No. 549-2 at 1.)

On the morning of March 24, 2023, the Court held a formal charge conference where it took up challenges to its jury instructions and verdict form. (*See* Dkt. No. 534.) In relevant part, the jury instructions included the following:

> In light of this FRAND commitment, ladies and gentlemen, I have referred at times in these instructions to SEPs, standard essential patents. The parties have stipulated that the '686

> Patent, the '881 Patent, the '008 Patent, and the '835 Patent, and the '354 Patent are standard essential patents or SEPs.

(Dkt. No. 534 at 66:23–67:3.) There were no objections to this instruction at the formal charge conference. (*See id.* at 13:15–18, 66:23–67:3.) That afternoon, the Jury returned its verdict. (*See* Dkt. No. 508.) In pertinent part, the Jury found that claim 14 of the '008 Patent was not infringed and not invalid.[1] (Dkt. No. 508 at 4–5.) On May 3, 3023, the Court entered final judgment on the verdict. (*See* Dkt. No. 513 at 2.)

TQ Delta now renews its 50(a) JMOL that CommScope infringed claim 14 of the '008 Patent, and in the alternative, seeks a new trial on the infringement of that claim.

II. LEGAL STANDARD

Upon a party's renewed motion for judgment as a matter of law following a jury verdict, the Court asks whether "the state of proof is such that reasonable and impartial minds could reach the conclusion the jury expressed in its verdict." FED. R. CIV. P. 50(b); *Am. Home Assur. Co. v. United Space Alliance*, 378 F.3d 482, 487 (5th Cir. 2004). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie." *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). "A JMOL may only be granted when, 'viewing the evidence in the light most favorable to the verdict, the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable jurors could not arrive at any contrary conclusion.'" *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d

[1] The Jury found that CommScope infringed claim 17 of the '881 Patent, claim 36 of the '686 Patent, claim 5 of the '048 Patent, claim 10 of the '835 Patent, claim 18 of the '411 Patent, and claim 10 of the '354 Patent. (*Id.* at 4.) The Jury also found that CommScope's infringement was willful. (*Id.* at 6.) However, the Jury also determined that claim 36 of the '686 Patent and claim 10 of the '835 Patent were invalid. (*Id.* at 5.)

1255, 1261 (Fed. Cir. 2013) (quoting *Dresser-Rand Co. v. Virtual Automation, Inc.*, 361 F.3d 831, 838 (5th Cir. 2004)).

Under Fifth Circuit law, a court is to be "especially deferential" to a jury's verdict, and must not reverse the jury's findings unless they are not supported by substantial evidence. *Baisden v. I'm Ready Productions, Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). "Substantial evidence is defined as evidence of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions." *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000). A JMOL must be denied "unless the facts and inferences point so strongly and overwhelmingly in the movant's favor that reasonable jurors could not reach a contrary conclusion." *Baisden* 393 F.3d at 498 (citation omitted). However, "[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant." *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

In evaluating a motion for judgment as a matter of law, a court must "draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that [the court] might regard as more reasonable." *E.E.O.C. v. Boh Bros. Const. Co., L.L.C.*, 731 F.3d 444, 451 (5th Cir. 2013) (citation omitted). However, "[c]redibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). "[T]he court should give credence to the evidence favoring the nonmovant as well as that 'evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that evidence comes from disinterested witnesses.'" *Id.* at 151 (citation omitted).

Further, "courts do not grant new trials unless it is reasonably clear that prejudicial error has crept into the record or that substantial justice has not been done, and the burden of showing harmful error rests on the party seeking the new trial." *Metaswitch Networks Ltd. v. Genband US LLC*, 2017 U.S. Dist. LEXIS 137926, at *8 (E.D. Tex. Aug. 28, 2017). "A new trial may be granted, for example, if the district court finds the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed in its course." *Smith v. Transworld Drilling Co*., 773 F.2d 610, 612–13 (5th Cir. 1985); *see also Laxton v. Gap Inc*., 333 F.3d 572, 586 (5th Cir. 2003).

III. DISCUSSION

TQ Delta moves for renewed JMOL pursuant to Federal Rule of Civil Procedure 50(b) that claim 14 of the '008 Patent was infringed. Infringement can be proven based on an accused product's use of an industry standard if the asserted claim is standard essential. *INVT SPE LLC v. Int'l Trade Comm'n*, 46 F.4th 1361, 1377 (Fed. Cir. 2022) (internal citations omitted). Claims are standard essential if the reach of the claims includes any device that practices the standard. *Id.* Only in the situation where a patent covers every possible implementation of a standard can infringement be shown by compliance with the standard. *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010). However, the "industry standard [may] not provide the level of specificity required to establish that practicing that standard would always result in infringement." *Id.*

At trial, TQ Delta theorized that claim 14 of the '008 Patent was essential to the standard known as VDSL2, that CommScope accused products implemented VDSL2, and thus that CommScope infringed claim 14 of the '008 Patent. (*See* Dkt. No. 539 at 3.) This Motion renews TQ Delta's motion for the same relief requested (and denied) at the Rule 50(a) stage. There, as

here, TQ Delta argued that its expert mapped all of the elements of claim 14 to portions of the VDSL2 standard, and demonstrated that all accused products complied with the standard, such that no reasonable juror could find that the accused products do not infringe claim 14. (Dkt. No. 533 at 205:12–23.)

A. No Stipulation of Standard Essentiality

As a threshold matter, TQ Delta asserts that CommScope stipulated that the '008 Patent is standard essential to the VDSL2 standard by failing to object to the jury instruction "the '008 Patent … [is a] standard essential patent[] or SEP[]," and thereby conceded that there is no possible way to implement that standard without infringing claim 14. (Dkt. No. 539 at 1; Dkt. No. 534 at 66:25–67:3.) Although CommScope put on evidence and maintained that the '008 Patent was not standard essential throughout trial and at the Rule 50(a) conference, TQ Delta argues that CommScope "did an about face" at the charge conference by stipulating that claim 14 was essential to the VDSL2 standard. (*Id.* at 4.) Under *Fujitsu*, TQ Delta argues, CommScope as "was free to either prove that the claims do not cover all implementations of the standard or to prove that it does not practice the standard." (*Id.*, citing *Fujitsu*, 620 F.3d at 1327.) TQ Delta argues that CommScope ultimately stipulated to the opposite. (*Id.* at 7, citing Dkt. No. 530 at 66:25-67:2.)

In TQ Delta's view, there was no fact question remaining regarding infringement of claim 14 of the '008 Patent once CommScope "stipulated" to its standard essentiality in the jury instructions. (*Id.* at 4, 6, citing Dkt. No. 534 at 66:25–67:2.) It also places great emphasis on the fact that the Court instructed the Jury that "when the lawyers for both sides stipulate as to the existence of a fact, then you must, unless otherwise instructed, accept the stipulation as evidence and consider the fact as proven." (*Id.*, citing Dkt. No. 534 at 25:17–21.) TQ Delta concludes that

in light of this, no reasonable jury could have found that the '008 Patent was not standard essential to the VDSL2 standard. (*Id.*)

In response, CommScope clarifies that it never did an "about face" regarding infringement or the standard essentiality of the '008 Patent. (Dkt. No. 549 at 8.) Throughout trial, CommScope argued that the accused products did not meet claim elements 14[b] and 14[c] of the '008 patent because Section 12.3.6.2 and Table 12-70 of the VDSL2 standard did not work in the same way as claim 14. (*Id.* at 9.) It points to its communication to the Court, asserting that it always maintained that the '008 patent was not infringed, but "*in the event* that the jury finds [the '008 Patent] to be infringed, then the patent must, by definition, be essential and subject to TQ Delta's RAND commitment." (Dkt. No. 549 at 8, citing Dkt. No. 549-2.)

TQ Delta ultimately argues that CommScope stipulated to infringement,[2] and CommScope vehemently disagrees. It asserts this is supported by the jury instructions and verdict form, which unambiguously left infringement of the '008 Patent for the Jury to decide.[3] (*Id.* at 9; Dkt. No. 563 at 2.) In CommScope's view, TQ Delta ignores the context of the jury instruction stating that the parties stipulated to the standard essentiality of the '008 Patent. (*Id.* at 10.) It urges that the Court's instruction states that, *in the context of the FRAND commitment*, the parties agreed that if damages were incurred for the '008 patent, those damages are limited by FRAND. (*Id.*, citing Dkt. No. 534 at 66:23-68:3.)

[2] TQ Delta asserts "by stipulating that the 008 Patent is standard essential, CommScope conceded that claim elements 14[b] and 14[c] read on all compliant implementations of the VDSL2 standard" and that "[i]f CommScope believed that [TQ Delta] failed to prove that the 008 Patent is standard essential, CommScope should have sent that issue to the jury." (Dkt. No. 556 at 1.)

[3] For support, CommScope points to its proposed jury instruction stating that "the Court is not instructing you that the asserted patents are actually essential to any standard." (Dkt. 549 at 9, citing Dkt. No. 549-4 at 36.) TQ Delta argues that this is misdirection—that proposed instruction was a disputed instruction, and that CommScope did not maintain this position through the charge conference. (Dkt. 556 at 2.)

The Court agrees that the record supports CommScope's argument that it never stipulated to the standard essentiality of the '008 Patent for infringement purposes. Instead, as CommScope's email to the Court clarifies, standard essentiality was agreed to only in the event that the Jury found infringement for the purposes of FRAND damages. (*See* Dkt. No. 549-2 at 1 ("CommScope contends that U.S. Patent Nos. …8,090,008…[is] neither essential nor infringed, but in the event that the jury finds [infringement], then the patent must, by definition, be essential and subject to TQ Delta's RAND commitment.").) TQ Delta asserts that there is nothing in the instruction suggesting that CommScope was entitled to the upside of standard essentiality (the FRAND encumberment) while maintaining that the '008 Patent is not standard essential for infringement purposes. (Dkt. No. 556 at 2.) The Court disagrees.

The Court's instruction regarding the stipulation applies only in the patent damages context. First, when read in the context of the remainder of the jury instructions and the verdict form, the stipulation is plainly conditional—the Jury would only reach the question of patent damages, and thus the stipulation, if it first found infringement and validity. (*See* Dkt. No. 508 at 7.) Second, there were no objections to the instruction or the verdict form, which made clear that infringement was still an issue to be decided by the Jury. CommScope could properly contest standard essentiality and infringement, *and* conditionally stipulate to standard essentiality in the case that the Jury found infringement because TQ Delta's infringement theory depended on a finding of essentiality. TQ Delta's infringement theory at trial was that the '008 Patent was standard essential, and that CommScope accused products practiced the standard. Necessarily then, if the Jury found infringement, it must have found that the '008 Patent was standard essential.

Accordingly, CommScope's position was not an unfair taking of the "upside" of standard essentiality—rather, it was the logical result of TQ Delta's infringement theory. Since there was

no stipulation to standard essentiality for the purposes of infringement and the instruction to the Jury regarding the stipulation applied only in the patent damages context, the Court moves next to the parties' substantive arguments.

B. TQ Delta Failed to Meet Its Burden to Prove Infringement of the '008 Patent

i. Party Arguments Regarding Standard Essentiality

TQ Delta argues that, even if CommScope did not stipulate to standard essentiality, there is not legally sufficient evidence of record from which a reasonable jury could have found non-infringement of claim 14 of the '008 Patent. (Dkt. No. 539 at 7.) Claim 14 recites:

> 14[Pre] – A multi carrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:
>
> 14[a] – associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudorandom number generator;
>
> 14[b] – computing a phase shift for each carrier signal based on the value associated with that carrier signal; and
>
> 14[c] – combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to substantially scramble the phase characteristics of the plurality of carrier signals, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

(Dkt. No. 1-4.) The Court construed the term "phase characteristic(s)" found in the preamble and element 14[c] as "one or more values that represent the language aspect of a constellation point." (Dkt. No. 169 at 63.) The Court further construed "computing a phase shift for each carrier signal" in element 14[b] to mean "computing the amount by which a phase is adjusted for each carrier signal." (*Id.* at 77.)

TQ Delta asserts that its expert, Dr. Madisetti, presented infringement evidence "in the form of the VDSL2 standard, data sheets, the [redacted], block diagrams, source code and source code specifications, testimony from the source code developer, Broadcom, and product testing and simulations" to conclude that each accused product infringed each element of claim 14. (Dkt. No.

539 at 8, citing Dkt. No. 530 at 115:1–25.) Conversely, CommScope argues that Dr. Madisetti failed to prove that claim elements 14[b] and 14[c] correspond with either the VDSL2 standard (specifically, Section 12.3.6.2 and Table 12-70 of the standard) or CommScope's accused products. (Dkt. No. 549 at 3.) Therefore, whether TQ Delta met its burden to prove that claim 14 was infringed depends on the evidence and testimony concerning claim elements 14[b] and 14[c].[4]

TQ Delta's infringement argument is grounded in the language of the preamble of claim 14. (*See* Dkt. No. 539 at 11.) It argues that the only carrier signals for which a phase shift must be computed and for which the phase shift is combined with the phase characteristic are the "plurality of carrier signals for modulating a bit stream" recited in the preamble. (*Id.*) At trial, TQ Delta mapped the claimed "plurality of carrier signals" to the subcarriers identified in Table 12-68, reproduced below, of the VDSL2 Standard (*see* Dkt. No. 530 at 120:17–22):

Table 12-68 –Bit mapping for R-P-MEDLEY with two bytes per DMT symbol

Subcarrier index	Constellation point
5, 10, 15, ..., 5 *n*, ...	00
1, 11, 21, ..., 10 *n* + 1, ...	SOC message bits 0 and 1
2, 12, 22, ..., 10 *n* + 2, ...	SOC message bits 2 and 3
3, 13, 23, ..., 10 *n* + 3, ...	SOC message bits 4 and 5
4, 14, 24, ..., 10 *n* + 4, ...	SOC message bits 6 and 7
6, 16, 26, ..., 10 *n* + 6, ...	SOC message bits 8 and 9
7, 17, 27, ..., 10 *n* + 7, ...	SOC message bits 10 and 11
8, 18, 28, ..., 10 *n* + 8, ...	SOC message bits 12 and 13
9, 19, 29, ..., 10 *n* + 9, ...	SOC message bits 14 and 15
NOTE – The byte is given as (b7, b6, b5, b4, b3, b2, b1, b0), where b7 is the MSB and b0 is the LSB. Mapping, e.g., "SOC message bits 0 and 1" to subcarriers 10*n*+1 means that the two-bit value (b1,b0) shall be used to determine the constellation point in accordance with the encoding rules given in clause 10.3.3.2. This constellation point will then be scrambled using the quadrant scrambler described in clause 12.3.6.2.	

[4] TQ Delta's Motion argues that it established that claim elements 14[Pre] and 14[a] practiced the VDSL2 standard as well. (*See* Dkt. No. 539 at 9–10.) As CommScope's Opposition addresses only elements 14[b] and 14[c], this Order analyzes only those elements. (*See* Dkt. No. 549.)

(Trial Ex. 34 at 261.) Dr. Madisetti explained that the claimed "phase characteristic" for each individual carrier signal is the constellation point values corresponding to the special operations channel ("SOC") message 0 and 1, 2 and 3, 4, and 5, etc. (Dkt. No. 530 at 121:7–21.) TQ Delta argues that the claimed "plurality of carrier signals for modulating a bit stream wherein each carrier signal has a phase characteristic associated with the bit stream" are only those subcarriers that the transceiver "uses…for modulating the bit stream" of the SOC messages. (Dkt. No. 539 at 9–10.)

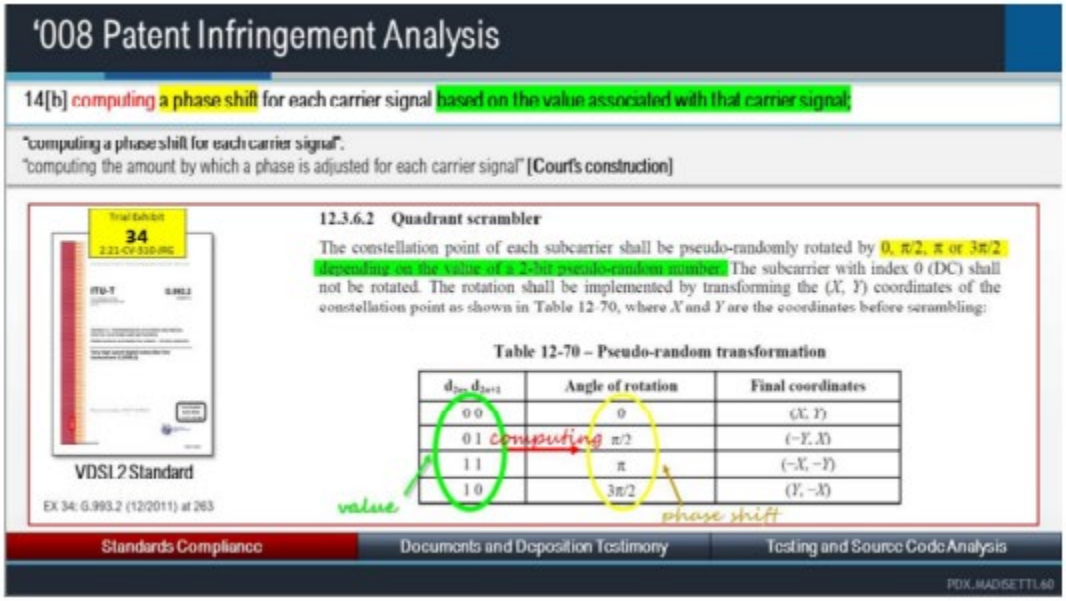
TQ Delta urges that another signal, called subcarrier zero, is not one of the "plurality of carrier signals for modulating a bit stream" and is not included in the first column of Table 12-68. (*Id.* at 10.) In TQ Delta's view, since subcarrier zero does not "ha[ve] a phase characteristic associated with the bit stream" it cannot be one of the "plurality of carrier signals." (*Id.*) Further, TQ Delta argues that subcarrier zero is not modulated at all and does not have a phase characteristic because it carriers a direct current. (*Id.*, citing Trial Ex. 34 at TQD_TX00153996.) Essentially, TQ Delta argues that subcarrier zero falls outside of the scope of claim 14.

On cross, Dr. Madisetti admitted that subcarrier zero was not combined or rotated by a phase shift.[5] However, TQ Delta maintains that this admission is of no import because subcarrier zero is not one of the "plurality of carrier signals" which must be combined or rotated. (*Id.* at 12.) TQ Delta additionally notes that Dr. Madisetti "confirmed the irrelevance of [subcarrier zero] to his infringement opinions." (*Id.* at 12–13, citing Dkt. No. 530 at 168:8–20 (Dr. Madisetti stating on redirect examination that he did not "rely" on subcarrier zero).) TQ Delta argues that the entire basis for CommScope's non-infringement argument at trial and in the briefing is that "when [the subcarrier index] is set to 0, there is no rotation." (*Id.* at 13, quoting Dkt. No. 533 at 215:15–16.)

[5] "Q. Now, Doctor Madisetti, just check me and make sure I'm reading right. Does it state, quote, the subcarrier with index 0 DC shall not be rotated? Did I read that correctly, sir? A. Yes. . . .Q. Okay. So what this tells us is that the subcarrier with index 0 shall not be rotated. Is that what it says, sir? A. Yes, that's what it says." (Dkt. No. 530 at 165:13-23.)

Therefore, TQ Delta concludes that there was no legally sufficient evidence for the jury to find that claim 14 did not read on the VDSL2 standard even though the subcarrier index 0 is not rotated. (*Id.*)

CommScope first responds that Dr. Madisetti failed to prove that the VDSL2 standard computed a phase shift for "each carrier signal" as required by claim element 14[b]. (Dkt. No. 549 at 3.) For this element, Dr. Madisetti relied on Table 12-70 of the standard, which says that each "constellation point" or "phase characteristic" (i.e., the "X, Y" pair) "of each subcarrier shall be pseudo-randomly rotated by ***0***, π/2, π, or 3 π/2 depending on the value of a 2-bit pseudo-random number":



(*Id.* at 4, quoting Tr. Ex. 34 at TQD_TX00153996) (emphasis added).

Dr. Madisetti testified that the "first column represents the value shown in green, and you are computing based on that value an angle of rotation which is 0[,] 90, 180, or 270, shown in yellow." (*Id.*, quoting Dkt. No. 530 at 126:3–15.) Section 12.3.6.2 states that "coordinates of the constellation point as shown in Table 12-70, where X and Y are the coordinates before

scrambling." (*Id.*, quoting Tr. Ex. 34 at TQD_TX00153996.) CommScope argues this means that the first row displaying a final coordinate of "X, Y" has no "phase shift" computed. (*Id.*) According to CommScope, element 14[b] requires more than adding a zero angle of rotation and having "the exact same value"; rather, there must be an *adjustment* in the final coordinates (the phase characteristics). (*Id.* at 4–5.)

Next, CommScope argues that TQ Delta failed to show that the phase shift computed for each respective carrier signal was combined with the phase characteristic of that carrier signal as required by claim element 14[c]. (*Id.* at 6.) It points to the portion of Dr. Madisetti's testimony where he admitted that the subcarrier zero shall not be rotated and concludes that "therefore Section 12.3.6.2 fails to combine the phase shift computed for each respective carrier signal." (*Id.* at 7, citing Dkt. No. 530 at 165:13-23.) It reiterates that "Table 12-70 does not combine the phase shift computed for the carrier having the bit value of 0, 0 with the phase characteristic for that bit value because the original coordinate (X, Y) is the same as the final coordinate (X, Y)." (*Id.*) Moreover, it points out that TQ Delta never testified that the carrier having the bit value of 0, 0 was excluded from the plurality of carriers. (*Id.*)

Regarding claim element 14[b], TQ Delta responds that CommScope's argument that a zero degree phase shift would not qualify as an "amount by which a phase is adjusted" contradicts the plain meaning of "amount," as no reasonable juror could conclude that zero is not an amount. (Dkt. No. 556 at 3.) It further points out that the second column of Table 12-70 of the standard (*see supra*) lists a zero phase shift as "an angle of rotation." (*Id.*, citing Dkt. No. 530 at 126:5–15.) TQ Delta asserts that Dr. Madisetti identified that 0 degree phase shift as one of the phase shift amounts by which a carrier signal is adjusted. (*Id.*, citing Dkt. No. 530 at 126:5–15.) It concludes

that element 14[b] is met, including when one of the possible computed phase shift amounts is zero. (*Id.*)

With respect to claim element 14[c], TQ Delta argues that CommScope's argument contradicts the VDSL2 standard. (*Id.* at 5.) It notes that "[c]ontrary to CommScope's assertion, the VDSL2 standard requires adjusting the phase characteristic by the 'amount of rotation' listed in column 2 of Table 12-70, i.e., combining the computed phase shift with the phase characteristic, including when the bit value is (0,0)." (*Id.*) For that reason, it argues that CommScope's contention that Table 12-70 does not combine the phase shift computed for the carrier with the bit value of 0, 0 with the phase characteristic for that bit value does not comport with the standard. (*Id.*) TQ Delta additionally disputes CommScope's argument that TQ Delta never testified that the carrier having the bit value of 0, 0 was excluded from the plurality of carriers. (*Id.* at 5.) It asserts that Dr. Madisetti testified that the carrier signals identified in Table 12-68 are the claimed "plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream," and that subcarrier zero is not one of them. (*Id.*, citing Dkt. No. 530 at 118:19-119:3, 119:23-120:7, 120:14-121:21, and 168:8-20.)

CommScope contends that TQ Delta's argument for claim 14 "hinges on its assertion that the plain meaning of 'amount' is so clear that 'no reasonable juror could conclude that zero is not an amount.'" (Dkt. No. 563 at 3.) It urges that whether zero is an amount is a "quintessential question of fact" that the Jury could, and properly did, answer in the negative. (*Id.*) Regarding element 14[b], it argues that the evidence demonstrated that a phase shift of zero is not an "amount by which a phase shift is adjusted," as required by the Court's construction of claim element 14[b]. (*Id.*) It notes that Section 12.3.6.2 unambiguously states that original "coordinates of the constellation point as shown in Table 12-70, where X and Y are the coordinates before

scrambling." (*Id.*, citing Tr. Ex. 34 at TQD_TX00153996.) In CommScope's view, this means that the first row, with a final coordinate of X, Y, has no phase shift computed (or "adjusted")—the zero angle of rotation does not adjust the phase shift because the original X, Y coordinate remains the same. (*Id.* at 3–4.)

CommScope asserts that claim element 14[b] is also not met because the zero angle of rotation is not computed for "each carrier signal" as explained above, and "each carrier signal" is not combined because there is no phase shift for bit value 0, 0. (*Id.* at 4.) It additionally points out that TQ Delta never stated that the subcarrier zero is not one of the plurality of carrier signals; TQ Delta only stated that his infringement theory did not rely on that subcarrier. (*Id.*, citing Dkt. No. 530 at 168:12-16.)

ii. Court Analysis

As a preliminary matter, the Court clarifies the proper inquiry. The Fifth Circuit has held that a judgment as a matter of law should be granted only "[i]f the evidence at trial points so strongly and overwhelmingly in the movant's favor that reasonable jurors could not reach a contrary conclusion." *Omnitech Int'l, Inc. v. Clorox Co.*, 11 F3d 1316, 1323 (5th Cir. 1994) (citations omitted). However, "when the party moving for a directed verdict has such a burden, the evidence to support the granting of the motion must be so one-sided as to be of over-whelming effect." *Grey v. First Nat'l Bank in Dall.*, 393 F.2d 371, 380 (5th Cir. 1968). *See also*, *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1364 (Fed. Cir. 2018) (citing *Grey*, 393 F.2d at 380). Since the Jury has found that TQ Delta failed to carry its burden on infringement, TQ Delta must now show that the evidence that supports granting the Motion is "so one-sided as to be of overwhelming effect." *Grey*, 393 F.2d at 380. TQ Delta has not done so.

TQ Delta has failed to point to evidence of overwhelming effect showing that the Jury must have found infringement. Mere evidence does not amount to overwhelming evidence. One expert who testifies and is cross-examined does not overwhelm, especially where the cross-examination is done skillfully. Thus, after a fulsome review of the record, the Court finds that this issue is not "so one-sided" as to justify overturning the Jury's verdict. *Grey*, 393 F.2d at 380. The evidence is simply not so overwhelming that it required the Jury to find standard essentiality of claim 14 of the '008 Patent. Since TQ Delta's only infringement theory for the '008 Patent relied on establishing its standard essentiality, the Court need not reach the issue of whether the accused products practiced the standard.

C. A New Trial Is Not Warranted

In the alternative, TQ Delta argues that the Court should grant a new trial on the issue of the infringement of the '008 Patent. (Dkt. No. 539 at 14.) TQ Delta contends that the Jury was instructed that the parties stipulated to the standard essentiality of the '008 Patent, then turned around and argued to the jury that the VDSL Standard was different from claim 14. (*Id.*, citing 3/24/23 Tr. at 107:17–19.) In TQ Delta's view, this made the non-infringement verdict "against the weight of the evidence, based on unfair and irrelevant argument, and plainly unjust." (*Id.* at 15.) CommScope responds that the Jury had a legally sufficient evidentiary basis to find that the accused products do not infringe claim elements 14[b] and 14[c] of the '008 Patent. (Dkt. No. 549 at 11.) As a result, CommScope argues the Motion for New Trial should be denied. (*Id.* at 11–12.)

The Court agrees with CommScope—as discussed above, the Jury had legally sufficient evidence to conclude that the accused products did not infringe claim 14 of the '008 Patent. The Court further notes that TQ Delta failed to object to the "unfair and irrelevant" closing argument that it now cites to. (*See* Dkt. No. 534 at 107:1–25.)

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IV. CONCLUSION

Having considered the Motion, the Court finds that it should be and hereby is **DENIED.** The parties are directed to jointly prepare a redacted version of this Order for public viewing and to file the same on the Court's docket as an attachment to a Notice of Redaction within five (5) business days of this Order.

So ORDERED and SIGNED this 15th day of February, 2024.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE